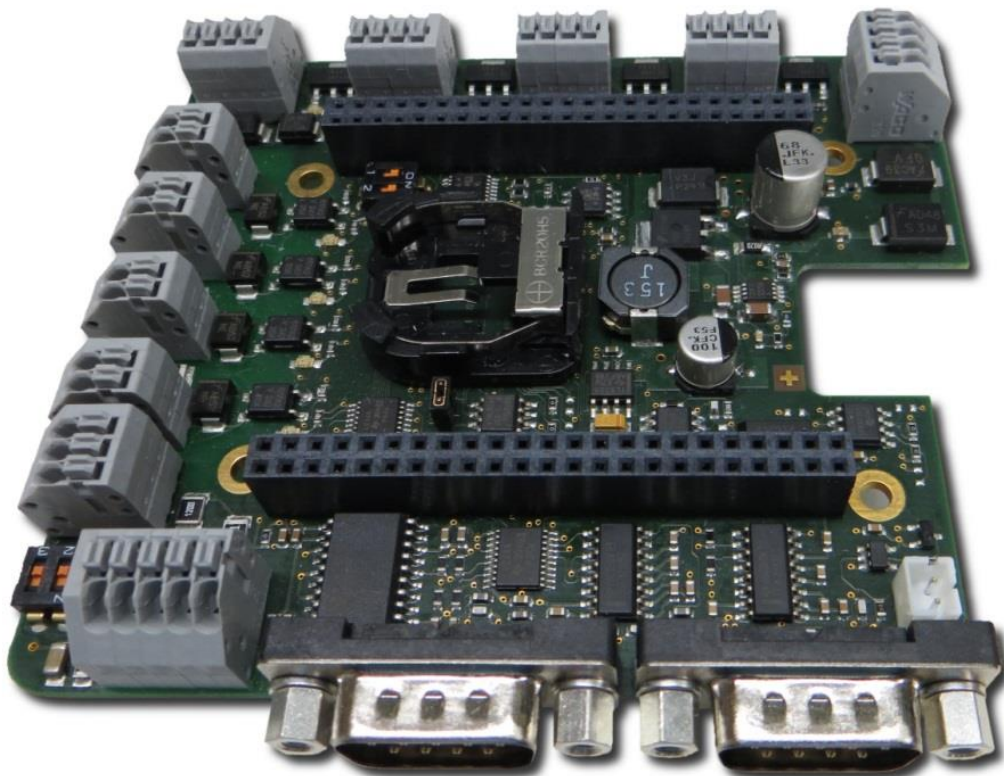


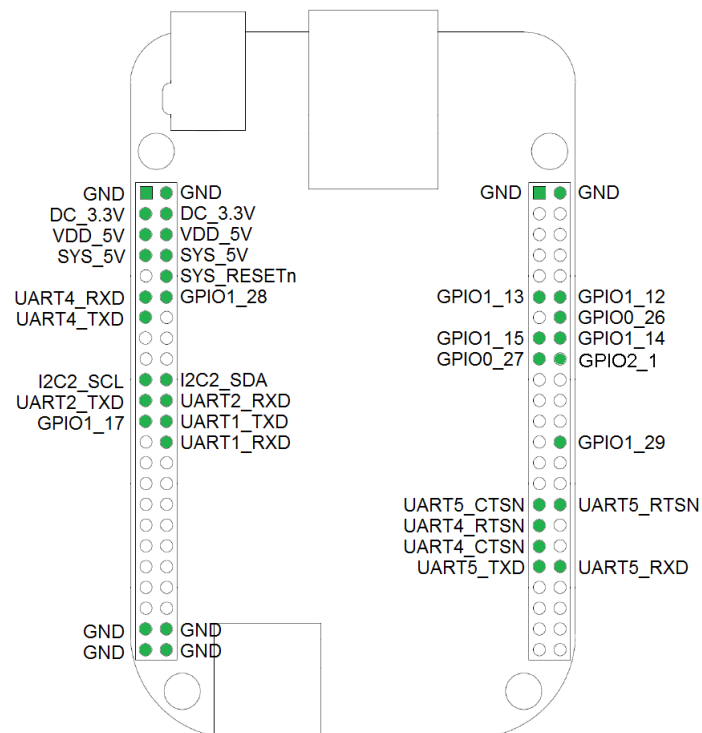
# qCAPE-COM1 for Beaglebone Black

## Data Sheet

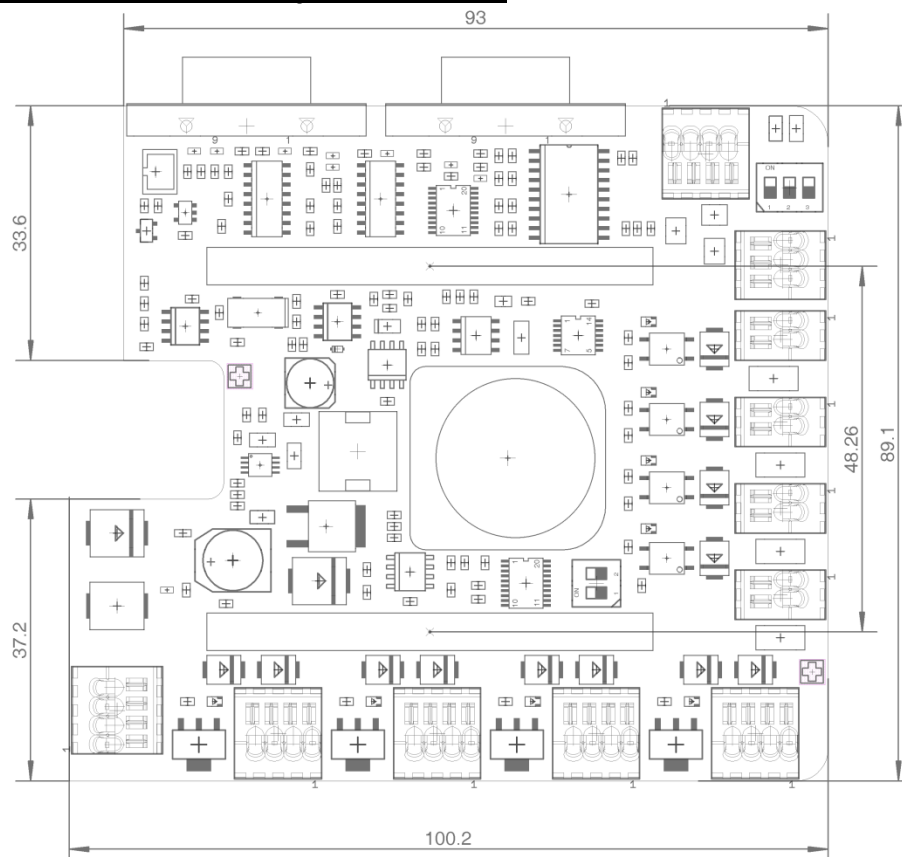


The qCAPE-COM1 is an extension module specifically designed for the Beagle Bone Black (BBB). This CAPE provides different Interfaces and digital I/O for direct usage in industrial environment.

## 1. BBB's pins occupied by qCAPE-COM1



## 2. Mechanical dimensions of qCAPE-COM1

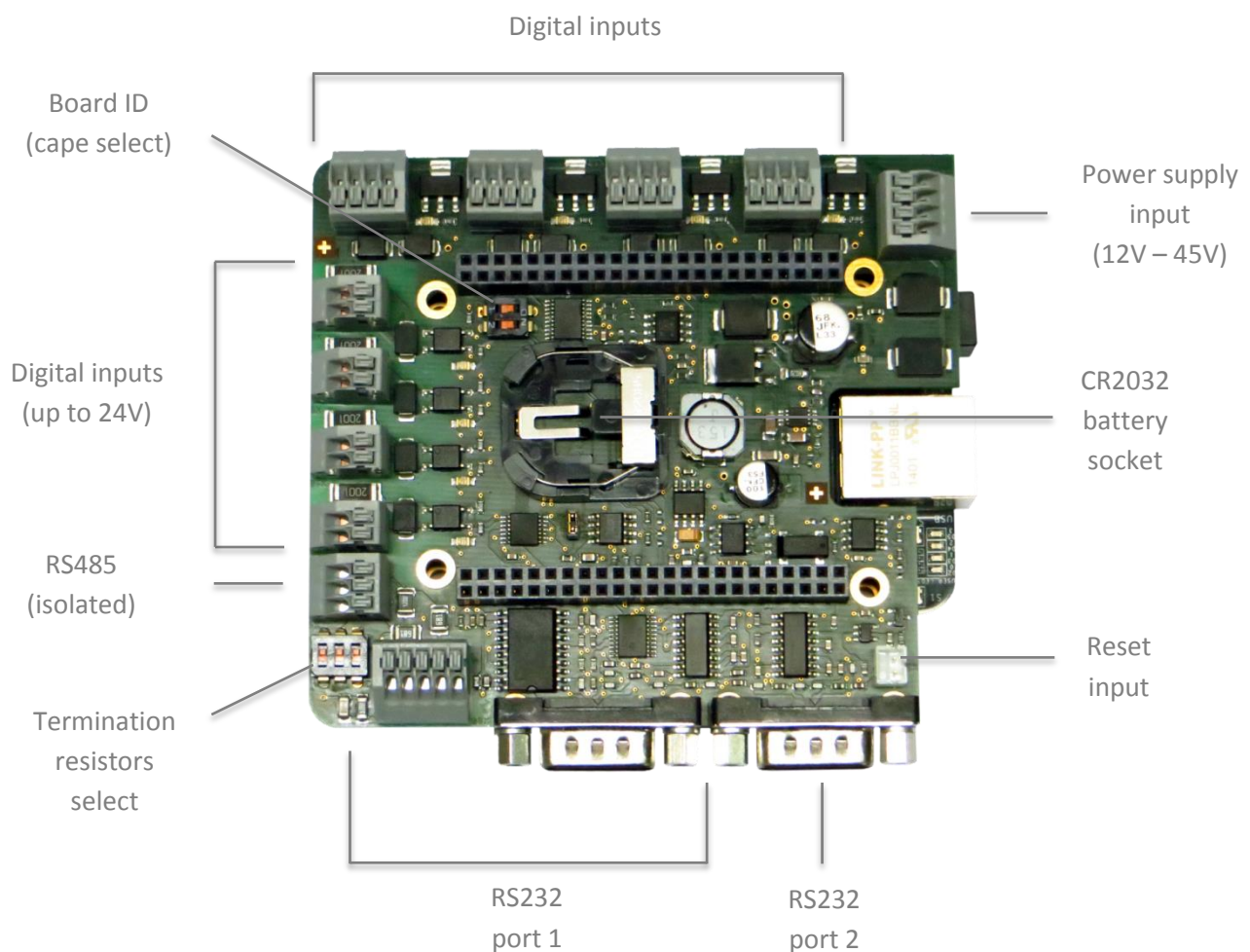


All dimensions in mm

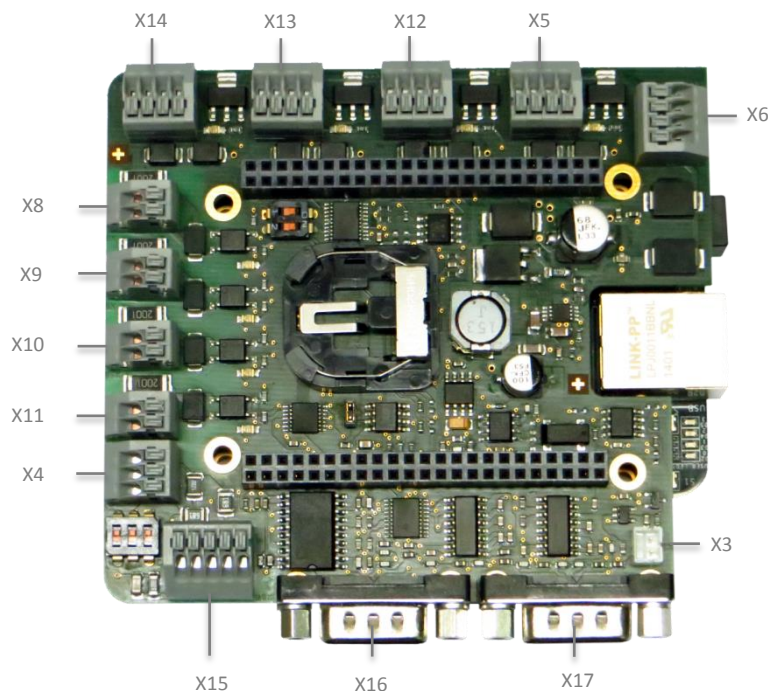
### 3. Features

- Power supply input (12V – 45V min. 0.5A. Required to work with cape)
- 4 digital outputs (up to 1.4A @ 24V @ 25 °C), operating Voltage 12..45V
- 4 digital inputs (up to 24V, threshold @ 6.5V)
- 2 RS232 interfaces (TXD, RXD, CTS, RTS)
- RS485 interface with 15kV ESD protection and switchable termination resistors
- Real Time Clock with leap-year compensation and CR2032 battery socket
- 1Mbit EEPROM memory with I2C interface
- On-board temperature sensor with I2C interface (-55°C to +125°C)
- Reset input connector for external switch (JST PH type)

### 4. Connector's location



## 5. Connector's table



qCAPE-COM1 is compatible only with Beaglebone Black. It is not recommended to use it with any other version of Beaglebone.

qCAPE-COM1 must be powered from its input (X6) for correct work.

**RoHS**  
Compliant

qCAPE-COM1 fulfill the RoHS Directive requirements.

Name	Description (Board V1.1)
<b>Power Input</b>	
X6-1, 2	Power Input VCC (+12..+45V)
X6-3, 4	Power Input GND
<b>Reset Input</b>	
X3-1	GND
X3-2	Reset Input
<b>Digital Output (max 45V)</b>	
X5-1, 2	Positive power supply voltage
X5-3	Output to the load (GPIO0_27)
X5-4	Load GND
X12-1, 2	Positive power supply voltage
X12-3	Output to the load (GPIO0_26)
X12-4	Load GND
X13-1, 2	Positive power supply voltage
vX13-3	Output to the load (GPIO1_17)
X13-4	Load GND
X14-1, 2	Positive power supply voltage
X14-3	Output to the load (GPIO2_1)
X14-4	Load GND
<b>Digital Input (max 24V)</b>	
X8-1	Input VCC (GPIO1_12)
X8-2	Input GND
X9-1	Input VCC (GPIO1_13)
X9-2	Input GND
X10-1	Input VCC (GPIO1_14)
X10-2	Input GND
X11-1	Input VCC (GPIO1_15)
X11-2	Input GND
<b>RS485</b>	
X4-1	GND
X4-2	485TX/RX-
X4-3	485TX/RX+
	GPIO1_28 = high enable the 485 transmitter
<b>RS232</b>	
X15	RS232 Port 1 (Clamp)
X15-1	TXD
X15-2	RXD
X15-3, 4	GND
X16	RS232 Port 1 (SubD9)
X17	RS232 Port 2

For support please contact: [support@qcape.de](mailto:support@qcape.de)